BASIC MEDICAL SCIENCES (BMSC)

Subject-area course lists indicate courses currently active for offering at the University of Louisville. Not all courses are scheduled in any given academic term. For class offerings in a specific semester, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm).

Course Fees
Some courses may carry fees beyond the standard tuition costs to cover additional support or materials. Program-, subject- and course-specific fee information can be found on the Office of the Bursar website (http://louisville.edu/bursar/tuitionfee).

BMSC 802. Histology 2-5 Units
Description: The purpose of this course is for students to learn the structure and basic function of cells, tissues, organs and organ systems. We will begin with a description and discussion of cells that comprise the four basic tissues tissues in the human body. Then, we'll move on to specific organ systems culminating with a detailed study on the oral cavity including the mineralized and soft tissues components. Students will be able to describe and identify the microscopic features and functions of cells, tissues, organs, and organ systems.

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BMSC 804. Biochemistry 5 Units
Description: Covers the fundamentals of biochemistry and molecular biology with special emphasis given to areas applicable to dentistry. Topics include cell biology, chemical principles of biological systems and the structure, function and metabolism of amino acids, proteins, carbohydrates, lipids and nucleic acids. Clinical correlates include sickle cell anemia and hemoglobinopathies, blood clotting disorders, collagen diseases, diabetes, nutritional disorders, diseases of amino acid and lipid metabolism, molecular basis of genetic diseases.

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BMSC 805. Physiology 6 Units
Description: This course provides an in depth view of the fundamental principles concerning function of the circulatory, respiratory, kidney, endocrine, gastrointestinal, muscle, and central nervous systems. Emphasis is placed on physiologic mechanisms for feedback control of function in humans. Overall, this course offers a strong physiology background as a science basis for clinical dentistry. It will consist of didactic lectures and readings from the course lecture notes. All dental students will take this course on a letter grade basis.

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BMSC 806. Microbiology and Immunology 4 Units
Description: This is a general course on infectious diseases of high relevance to those in the field of dentistry. Special emphasis are placed on oral infections, immunity, treatment, and microbial resistance mechanisms. Specific topics include the human immune response, pathogenesis of common microbial infections, and the microbiological and biochemical basis of oral, head, and neck infections, periodontal diseases, and cariogenesis.

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BMSC 807. Pharmacology and Dental Therapeutics 4 Units
Description: The Pharmacology and Dental Therapeutics course is designed to provide broad pharmacokinetic and pharmacodynamic principles towards for the major drug groups utilized in dentistry by health care providers and their patients. The course content emphasizes mastery of the principles required for life-long learning of both current and yet to be released drugs to ensure appropriate therapeutic utilization that maximizes efficacy and minimizes toxicity in each individual patient.

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BMSC 809. Survey of Dental Gross and Neuroanatomy 7 Units
Prerequisite(s): Enrollment in the School of Dentistry This course is designed for first-year dental students.

Description: The primary goal of the course is to introduce clinically-oriented gross anatomical principles and foster critical thinking skills necessary for students to utilize their anatomical knowledge to evaluate the health of patients and to solve clinical problems. Anatomical donor dissection is the focal point of all teaching activities, allowing students to develop a three-dimensional/functional appreciation for the relationships of the various structures in each anatomical region.

Note: Cross-listed with ASNB 672.

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